

Appl. No. 09/539,461

REMARKS/ARGUMENTS

In the Office Action, all of the claims 1 to 9 and 11 to 21 were rejected under 35 U.S.C. 102(e) as being anticipated United States Patent No. 6,141,339 (hereinafter Kaplan).

It is noted that these claims include subject matter that was either allowed or indicated to be allowable in the previous Office Action of April 22, 2005. Applicant believes that these claims remain allowable over Kaplan as discussed in further detail below.

For anticipation under 35 U.S.C. 102, a cited reference must teach every aspect of a claimed invention. This requirement is not met by Kaplan, in that the invention as recited in the claims is substantially different from the subject matter disclosed in Kaplan.

Considering first the rejected independent claim 1, this claim recites a switching arrangement for switching an ATM cell having an ATM cell header. The switching arrangement includes a first circuit configured to receive the ATM cell, a second circuit coupled to the first circuit, a packet switch device coupled to the second circuit, and a third circuit operatively coupled to the packet switch device.

In the paragraph bridging pages 2 and 3 of the Office Action, reference is made to the ATM interface 206 of Figure 2 and the ATM card 324 of Figure 3 of Kaplan as allegedly disclosing the claimed first circuit. According to the Office Action, Kaplan discloses the claimed second circuit in the form of an ATM/SONET interface which is supposedly shown in Figure 4. However, Figure 4 of Kaplan does not show this interface. The ATM switch 441 in Figure 4 of Kaplan is referenced in the Office Action as a packet switch device, and the MUX in Figure 4 of Kaplan, apparently the ATM voice MUX 444, is referenced in the Office Action as being the claimed third circuit.

Applicant would first note that the discussion of Kaplan in this paragraph of the Office Action is not entirely clear, in that the portions relating to an alleged ATM/SONET interface and a MUX both refer to Figure 4, and also to portions of the description that instead describe Figures 1 and 3. In order to advance the examination of the present application, Applicant has made an attempt to address the anticipation rejection to the extent possible.

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According to claim 1, the second circuit creates a packet header having at least a portion of the information contained in the ATM cell header and attaches the packet header to the ATM cell to thereby form an ATM cell-containing packet. Although the Office Action refers to an ATM/SONET interface in Figure 4 as the claimed second circuit, no such interface has been shown in Figure 4. The relevant portion of the Office Action also refers to column 3 line 50, which merely states that the MUXes have ATM/SONET interfaces. Notably, this referenced portion of Kaplan relates to the MUXes 120, 122, 124, 126 of Figure 1, and not to Figure 4. In any case, Kaplan does not disclose an ATM/SONET interface which performs the functions of the second circuit recited in claim 1. Kaplan does not disclose creating a packet header having at least a portion of the information contained in an ATM cell header or attaching the packet header to the ATM cell to form an ATM cell-containing packet. In fact, Kaplan is silent as to any possible mechanism for forming an ATM cell-containing packet.

In respect of the claimed packet switch device, Applicant respectfully submits that the ATM switch 441 in Figure 4 of Kaplan is not a packet switch device. An ATM switch would receive and switch ATM cells, not packets. Furthermore, Kaplan does not disclose that the ATM switch 441 performs any of the claimed functions of the packet switch device of claim 1. According to claim 1, the packet switch device is configured to switch packets among a plurality of ports and is operatively coupled to the second circuit to receive the ATM cell-containing packet through a first port and to switch the ATM cell-containing packet to a second port as if the ATM cell-containing packet is a packet of the type normally switched by the packet switch device. This functionality has not been disclosed in Kaplan.

Claim 1 also recites that the third circuit is operatively coupled to the packet switch device for receiving the ATM cell-containing packet, and that the third circuit identifies the ATM cell-containing packet as a packet containing an ATM cell and removes the packet header to recover the ATM cell. As noted above, the Office Action refers to a MUX in Figure 4 and to column 3, lines 60 to 65 of Kaplan as allegedly disclosing the claimed third circuit. However, the above functions have not been disclosed in Kaplan. The referenced portion of the description of Kaplan merely states that the MUXes 120, 122, 124, 126 of Figure 1 have the ability to implement ATM switched virtual circuits and can interwork ATM cell streams between different

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virtual connections to allow various connection options between a residence and a service node. This portion of Kaplan also indicates that ATM connections could be provisioned as PVC/PVCs from the residence directly to the service node. None of these features described in Kaplan relate to receiving an ATM cell-containing packet, identifying the ATM cell containing packet as a packet containing an ATM cell, or removing a packet header to recover the ATM cell, as recited in claim 1. The ATM voice MUX 444 in Figure 4 and the corresponding description thereof similarly fail to disclose the claimed functions.

Regarding claim 2, the Office Action refers to column 4, lines 35 to 40 as allegedly disclosing IP packets. Although this portion of Kaplan refers to the Internet and TCP/IP protocol, there is no disclosure in Kaplan of an ATM cell-containing IP packet, as recited in claim 2.

The Office Action refers to column 5, line 24 as disclosing a packet switching device as part of a router. However, the referenced portion of Kaplan indicates that the hub 204 of Figure 2 also provides a LAN/router function, whereas the ATM cell switch 441 in Figure 4 of Kaplan, which is not part of the hub 204, is relied upon in the Office Action as allegedly disclosing a packet switching device. Therefore, Kaplan does not disclose that the ATM switch 441 is part of router.

Independent claim 4 recites a method for allowing both packets and ATM cells to be routed via a packet switch which routes packets that conform to format requirements. The method involves receiving packets at a first circuit, receiving ATM cells at a second circuit, formatting the ATM cells to fit format requirements of the packet switch to thereby create ATM cell-containing packets, and forwarding both the packets and the ATM cell-containing packets to the packet switch for routing. The operation of formatting involves associating the ATM cell-containing packets with tags. The tags allow a receiver circuit receiving the ATM cell-containing packets from the packet switch to identify the ATM cell-containing packets as packet-like series of bits having therein ATM cells.

The Office Action on pages 3 and 4 refers to the LAN card 330 and the ATM card 324 of the hub 304 in Figure 3 of Kaplan as allegedly disclosing the claimed first circuit and second

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circuit. Reference is then made to column 6, line 39 as supposedly disclosing the claimed formatting and forwarding operations recited in claim 4. However, this portion of Kaplan relates to Figure 4, not to Figure 3, and states that the ATM voice MUX 444 and a call manager 445 are connected to POTS network 460. No formatting or forwarding functions are disclosed. With respect to associating the ATM cell-containing packets with tags that allow a receiver circuit to identify ATM cell-containing packets, the Office Action on page 4 refers to Figure 9 of Kaplan. This figure, however, represents a trunk circuit table used to access information about an originating circuit or a terminating circuit. Figure 9 does not disclose associating packets with tags that allow a receiver circuit to identify ATM cell-containing packets.

Claim 5 depends from claim 4 and recites that ATM cells are padded with additional bits. Although the Office Action refers to column 3, line 5 of Kaplan in this regard, this portion of Kaplan simply states an ADSL bit rate of 6,000,000 bits per second. Bit padding is not mentioned.

Claims 6 to 9 depend from claim 4 and distinguish over Kaplan for at least the same reasons as claim 4.

Claim 11 depends from claim 4 and recites the additional distinguishing feature that the formatting operation includes associating the ATM cell-containing packets with packet headers that allow a receiver circuit to identify the ATM cell-containing packets. As discussed in detail above in the context of claim 1, Kaplan does not disclose ATM cell-containing packets or headers for such packets, and therefore Kaplan does not disclose the subject matter of claim 11.

Claim 12 similarly distinguishes over Kaplan in that it recites details of ATM cell-containing packet headers.

Independent claim 13 is discussed in the Office Action along with claim 1 in the paragraph bridging pages 2 and 3. Claim 13 recites a router for routing both ATM cells and packets received from a plurality of router input ports to a plurality of router output ports. The router includes a first circuit, a second circuit, a third circuit, and a switch. The third circuit is coupled to the first circuit and the second circuit for aggregating selected ones of ATM cells received by the first circuit and selected ones of packets received by the second circuit into a

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combined data stream that contains data from both the selected ones of the ATM cells and the selected ones of the packets and outputting the combined data stream. The switch is coupled to the third circuit for receiving the combined data stream, and directs information pertaining to individual ones of the selected ATM cells and the selected packets to respective ones of the plurality of router output ports. The respective ones of the router output ports are ascertained from packet headers associated with the information pertaining to individual ones of the selected ATM cells and the selected packets. The Office Action is silent as to where in Kaplan any of these structural or functional features have been disclosed, and Applicant submits that Kaplan fails to disclose any of these features.

Claims 14 to 16 depend from claim 13 and therefore distinguish over Kaplan for at least the same reasons as claim 13.

Regarding claim 17, this claim depends from claim 13 and recites a traffic management circuit coupled to the third circuit. The traffic management circuit monitors the ATM cells and packets to ascertain transmission priorities associated with individual ones of the ATM cells and the packets, and the third circuit selects the selected ones of the ATM cells and the selected ones of the packets for outputting in the combined data stream based on the transmission priorities. The Office Action refers to column 7, lines 45 to 55 as supposedly disclosing these features. This portion of Kaplan, however, does not disclose any of the features recited in claim 17. There is absolutely no disclosure of a traffic management circuit, a monitoring function, transmission priorities, or an ATM cell and packet selecting function.

Claims 18 and 19 depend from claim 17 and recite minimum bandwidth guarantees for ATM cells and packets, respectively. The Office Action refers to column 4, line 67 of Kaplan in respect of these claims, although this portion of Kaplan merely mentions "high bandwidth available". There is no disclosure of any sort of minimum bandwidth guarantee as recited in claims 18 and 19.

Claims 20 and 21 depend from claim 13 and recite details of packet headers. As discussed above, Kaplan does not disclose packet headers, and accordingly claims 20 and 21 further distinguish over the cited reference.

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Applicant respectfully requests reconsideration and withdrawal of the anticipation rejection under 35 U.S.C. 102(e). The cited reference to Kaplan does not disclose the limitations of the rejected claims.

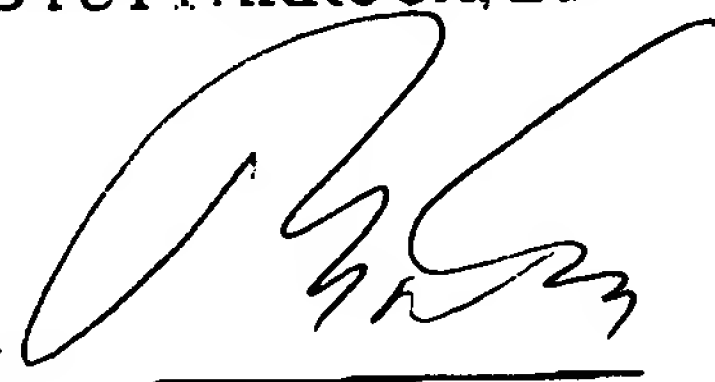
Applicant has taken this opportunity to correct minor errors noted in claims 8, 18, and 19. In particular, "packet switch" in claim 8 has been amended to read "packets", and claims 18 and 19 have been amended to depend from claim 17 instead of from claim 14. As claim 19 recites a minimum bandwidth guarantee associated with packets, this claim has been further amended to replace "ATM cells" with "packets" at line 3.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action to this effect is earnestly solicited.

Respectfully submitted,

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